

Disk Array Subsystem Pocket Guide



What's Inside

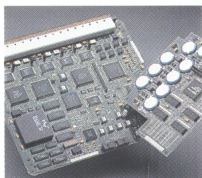
The Possibilities Are Endless.

The new AT&T Series 3 RAID Subsystem family sets the standard for next-generation RAID technology. In addition to the significant performance enhancements cache memory provides, this newly architected series of controllers offers amazing upgrade flexibility.

The Series 3 family is designed around the PCI bus, which has enabled us to build in future I/O connection capabilities. A key objective with this new subsystem family is to facilitate the transition to rapidly evolving new I/O protocols, including the emerging serial standards.

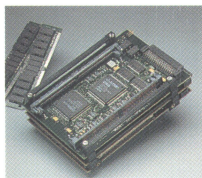
A Remarkable Performance.

AT&T RAID Subsystems deliver a variety of high-performance caching solutions. End users are ever on the lookout for faster and faster means of accessing data without compromising data integrity. Which is exactly what the architecture of the Series 3 RAID Subsystems makes possible. And with the battery backup option, the cache feature provides high fault tolerance.



6299 Controller.

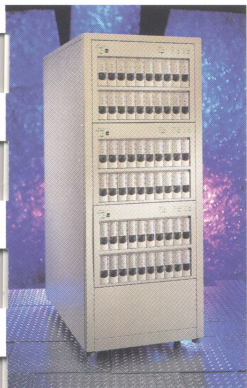
The 3601 RAID controller uses a 486 microprocessor, caching architecture, and an on-board Peripheral Component Interconnect (PCI) bus for higher performance and higher DMA bandwidth.



6210 Controller.

The 3201 RAID controller uses a 486 microprocessor. The first controller on the market in a 3.5" drive form factor, it uses standard SCSI connectors. Designed to deliver superior RAID performance to price-sensitive customers in PC LAN and UNIX environments.

6256 Subsystem



The Series 3 RAID Subsystem 6256 is designed to provide higher availability, higher performance, ease of service and high storage capacity. Redundant fan and power supplies are standard. Fans, power supplies, disk array controllers and disk drives are all hot-swappable and customer replaceable. An integrated UPS for battery backup is an option. One to three 6299 modules can be mounted in the 56" high standard width EIA rack-mount cabinet.

RAID SUPPORT

- 0 - Data Striping
- 1 - Mirroring
- 3 - Parallel transfer for high bandwidth
- 5 - Independent actuators with parity striped across drives

CONFIGURATION/MONITORING

- Host O/S-Dependent RAID Manager Software (Via SCSI):
 - UNIX MP-RAS
 - Windows NT™
- Host O/S-Independent RAID Manager For DOS Software (Via RS232 or SCSI):

SERVICEABILITY

- Hot-Swap Component Canisters Replaceable On-line By Customer:
 - Drives, Controllers, Power Supplies, and Fans/Fan Control Boards
- Other Components Replaceable Off-line By Trained Service Person:
 - Backpanels, Drive Terminators, Cables, AC Distribution, Display Board, and Status/ID Board

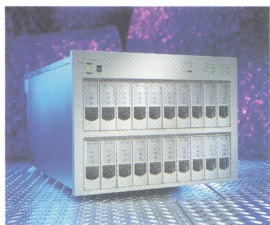
CONTROLLERS

- One or two hot-swappable controllers in each module
- Supports one differential 8/16-bit fast SCSI-2 host channel
- Supports five single-ended 8-bit fast SCSI-2 disk drive channels
- I/O cache options available

DRIVES

- Both 2.1 GB and 4.2 GB 7200 rpm drives available
- Up to 252 GB of storage in a single cabinet
- Drive SCSI ID automatically set upon drive insertion

6299 Subsystem



The Series 3 RAID Subsystems 6299 and 6299 Desk-Side are designed to provide ease of integration, installation and service. We minimized the number of cables in the drive data path, placed all major components in customer-replaceable

canisters, and optimized the packaging to offer a standard width EIA rack-mount (6299 module) cabinet or a desk-side (6299DS) cabinet.

RAID SUPPORT

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- 1 - Mirroring
- 3 - Parallel transfer for high bandwidth
- 5 - Independent actuators with parity striped across drives

CONFIGURATION/MONITORING

- Host O/S-Dependent RAID Manager Software (Via SCSI):
 - UNIX MP-RAS
 - Windows NT™
- Host O/S-Independent RAID Manager For DOS Software (Via RS232 or SCSI):

SERVICEABILITY

- Hot-Swap Component Canisters Replaceable On-line By Customer:
 - Drives, Controllers, Power Supplies, and Fans/Fan Control Boards
- Other Components Replaceable Off-line By Trained Service Person:
 - Backpanels, Drive Terminators, Cables, AC Distribution, Display Board, and Status/ID Board

CONTROLLERS

- One or two hot-swappable controllers in each module
- Supports one differential 8/16-bit fast SCSI-2 host channel
- Supports five single-ended 8-bit fast SCSI-2 disk drive channels
- I/O cache options available

DRIVES

- Both 2.1 GB and 4.2 GB 7200 rpm drives available
- Up to 84 GB per subsystem
- Drive SCSI ID automatically set upon drive insertion

6210 Subsystem



The AT&T 6210 RAID Subsystem is available in either a desk-side model (6210DS) or rack-mount configuration (6210RM). The highly-customizable RAID Subsystem provides up to ten disk drives and offers many options including redundant power supply and tape back-up. The many options available make the 6210 an exceptional, cost-effective RAID subsystem.

RAID SUPPORT

- 0 - Data Striping
- 1 - Mirroring
- 3 - Parallel transfer for high bandwidth
- 5 - Independent actuators with parity striped across drives

CONFIGURATION/MONITORING

- Host O/S-Dependent RAID Manager Software (Via SCSI):
 - UNIX MP-RAS
 - Windows NT™
- Host O/S-Independent RAID Manager For DOS Software (Via RS232 or SCSI)

SERVICEABILITY

- Hot-Swap Component Canisters Replaceable On-line By Customer:
 - Drives
 - Redundant Power Supply Option
- Customer Replaceable Tape Option

CONTROLLER

- Supports one 8/16-bit fast SCSI-2 host channel (single-ended or differential)
- Supports two single-ended, 8/16-bit fast SCSI-2 disk drive channels
- I/O cache options for up to 64 MB

DRIVES

- 2.1 GB or 4.2 GB 7200 rpm, 16-bit
- Up to 42 GB in each cabinet
- Drive SCSI ID automatically set upon drive insertion

Subsystem

6210

6299

6256

RAID/NON-RAID

Either

RAID

RAID

CAPACITY RANGE

Up to 42 GB

Up to 84 GB

Up to 252 GB

DRIVE SELECTION

2.1 DISK

Yes

Yes

Yes

4.2 DISK

Yes

Yes

Yes

TAPE

Yes

No

No

HOT SWAP CUSTOMER REPLACEABLE UNITS

DISKS

Yes

Yes

Yes

POWER

Yes (Opt.)

Yes

Yes

FANS

No

Yes

Yes

CONTROLLER

No

Yes

Yes

EXTENDED CACHE BATTERY BACK-UP OPTION

Yes

Yes

Yes

CONTROLLER I/O CACHE OPTIONS

8, 16, 32, 64 MB

8 to 16 MB

8 to 16 MB

RACK-MOUNT

Yes

Yes

No

DESK SIDE, FLOOR STANDING

Yes

Yes

Yes

UPS OPTION IN CABINET

No

No

Yes

DUAL CONTROLLER OPTION

No

Yes

Yes

RAID SUPPORT*

0, 1, 3, 5

0, 1, 3, 5

0, 1, 3, 5

*AT&T's implementation of RAID 1 supports striping and mirroring, "RAID 10"